

**IMPROVED METHOD FOR PRODUCING
LOW/HIGH VOLTAGE THRESHOLD TRANSISTORS
IN SEMICONDUCTOR PROCESSING**

ABSTRACT

[0024] The present invention provides a system and method for processing low voltage threshold transistors on a semiconductor wafer. The method may include: forming core transistors with drains on the semiconductor wafer; forming low voltage threshold transistors with drains on the semiconductor wafer; forming input output transistors with drains on the semiconductor wafer; forming a spacing layer over the core, low voltage and input output transistors; forming a first photoresist mask layer over the low voltage transistors; doping the drains of the core and the input output transistors, wherein the doping is a medium doping; forming a second photoresist mask layer over the input output transistors; and doping the drains of the core and the low voltage threshold transistors, wherein the doping is a medium doping.